



Building Consistency Meeting Minutes – 2.1.17 RESIDENTIAL

Public Attendance (Contractors, Architects, Engineers): 18

MCCE Staff Attendance: 39

Overview of Today's Agenda

- Today's agenda items: 0 recap, 8 new.
- Today's training topic – None due to Inspector workloads.

Welcome, Housekeeping, & Customer Service

- Mecklenburg County Code Enforcement is abbreviated as MCCE throughout the minutes.
- Consistency meetings in all trades have adopted a 4-hour format with 2-hours for consistency items and 2-hours allotted for ISO & CE. With regard to staff ISO hours, these meetings & trainings are able to be counted as Technical or Mentoring ISO time if one chooses, but any portion of time counted as one ISO category could not also be counted as any other category. Trade consistency meetings are scheduled monthly as follows:
 - Building Consistency (Comm) – 1st Tuesday of every month @ 8am.
 - Building Consistency (Res) – 1st Wednesday of every month @ 8am.
 - Electrical Consistency – 2nd Wednesday of every month @ 8am.
 - Mechanical Consistency – last Tuesday of every month @ 8am.
 - Plumbing Consistency – last Wednesday of every month @ 8am.
- Reminder of deadline established for topic/question submissions to building consistency team:
 - Third Wednesday of every month.
 - Deadline set to allow team time to research/explain code logic behind decisions.
 - Submit by email to Jeff Vernon, Bldg Code Administrator
jeff.vernon@mecklenburgcountync.gov
 - Submit online:
<http://charmec.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Forms/Pages/ConsisTopicSubmit.aspx>
- Training topics for future building consistency meetings, Comm (C) & Res (R). Topics in **bold** are approved to count toward CE credit hours; all topics count toward ISO hours.
 - **Mar 1 - (R) – Deck Construction (Jeff Griffin, Code Enforcement Mgr.)**
 - Mar 7 - (C) – Meeting cancelled due to conflict w/ LUESA University for staff
 - **Apr 4 - (C) – Magtech (David Markle, Product Rep for Magtech & Thermocrete)**
 - Apr 5 - (R) – Wall Bracing (Patrick Biddy, Plans Examiner)
- NCBA Winter Code Seminars:
 - Building
 - 2.20.2017 – Aberdeen
 - 3.13.2017 – Wake Co. (Bldg)
 - 3.27.2017 – Hickory
 - Mechanical
 - 2.21.2017 – Aberdeen
 - 3.28.2017 – Hickory
 - Plumbing
 - 2.22.2017 – Aberdeen
 - 3.29.2017 – Hickory
 - Electrical
 - 2.23.2017 – Aberdeen
 - 3.30.2017 – Hickory



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- Building code qualification classes at CPCC
 - 2017 Mar 24-26; Apr 8 & 9 – Level II
 - 2017 April 28-30; May 12-14 – Level I
 - 2017 July 21-23; Aug 5 & 6 – Level III
 - 2017 Sep 22-24; Oct 7 & 8 – Level II
 - 2017 Nov 17-19; Dec 1-3 – Level I

Residential Consistency (0 review items, 8 new items) – 1.5hrs of Tech ISO

1. **Open items or unresolved questions from last meeting:** None.
2. **Can you use 2x2 linear pickets/baluster material for a ledger strip?**
 - a. Section R502.6 specifies minimum bearing shall be a minimum of 1.5". Since this is the nominal size of 2x2 mat'l, linear pickets or baluster mat'l of that size will be allowed as a ledger.
 - b. Jeff Griffin, Code Enforcement Manager, reminded everyone that ledgers are ONLY for single joist support. Double joists & beams require hangers.
 - c. Eric Brown, Multi-trade Inspector, asked if ledgers were allowed at ends of double joists under walls. Jeff Griffin said yes, as long as the walls are non-loadbearing.
3. **Where is the measurement made to determine the need for guardrails on an exterior wood deck when there are permanent seats installed?**

To determine the need for guardrails, the measurement is made from the deck floor surface to the grade below. If guardrails are nec'ry based on this measurement, then any fixed seating will require the compliant guardrail height as measured from the seating surface. If guardrails are not nec'ry based on this measurement, then no railing will be req'd at fixed seating.
4. **What are the deck cantilever options for #2 SYP?**
 - a. Table 502.3.3(1) does not include info for cantilevers using #2 SYP; it only applies to #1 SYP. Engr'g is always an option for using #2 SYP. Other than engr'g, there are two means for using #2 SYP:
 - #2 SYP cantilever info is available in the 2015 International Residential Code and can be used as an alternate method with the proper request to Jeff Vernon, Bldg Code Administrator. Note: the IRC info applies to **floor loads only**.
 - If your cantilever condition involves floor loads only, the cantilever span info in Table 502.3.3(1) for a ground snow load of 30 psf will be allowed prescriptively for #2 SYP per Jeff Vernon & Jeff Griffin, Code Enforcement Manager.
 - b. Cantilevers using #2 SYP and involving roof loads are **only allowed** with engr'g. Trying to utilize table values for this condition would be assuming properties & performance that only an Eng'r could verify.
5. **Can cables be used for guardrails? What about glass?**
 - a. Cable railing systems are allowed, however, the vertical supports shall be spaced close enough & cables installed tight enough to prevent flexure in the cable which would allow the passage of a 4" sphere.
 - b. Glass railing systems are allowed, however, the glazing shall meet all req'd clearances per code. The glazing shall also have manufacturer documentation confirming it meets all uniform & concentrated loading minimums from the code.



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- c. Manufacturer installation instructions for cable & glass railing systems shall be onsite & available to the Field Inspector to ensure the installation meets the manufacturer's specs.

6. Do structural repairs on garage slabs need permits or not?

Yes. The slab is under a roof and within the perimeter of the foundation walls that are part of the house or detached garage. If this was a detached carport, there would be no req'd permit.

7. Is foundation waterproofing/drainage required to be installed and visible at foundation inspection?

- a. Inspecting these items is req'd, and the foundation inspection is the typical time to see them. However, formed foundations will not have these items installed @ the time of foundation inspection. MCCE Inspections Dept is working on a way to accommodate this in cases where these items can't be installed @ the time of foundation inspection.
- b. Patrick Biddy, Plans Examiner, mentioned the possible difficulty with probing the foundation and thereby damaging the waterproofing in certain instances.
- c. Brandon Burgin, Inspections Supervisor, said the presence of waterproofing often prohibits the visible inspection of grout lines in foundation masonry.
- d. This issue will be addressed again at a future consistency meeting.

8. What is the new limited plan review checklist for Residential plan review (effective Feb 6th)?

- a. After performing an audit last fall to research ways to reduce the turnaround time for our Residential Plan Review process, MCCE has created new guidelines for limited plan review of all residential projects. (see attached Residential-RTAC Plan Submittal Checklist)
- b. Under this limited plan review, approximately 25-30% of the content previously looked at during review will be deferred to the oversight of the Field Inspector during construction.
 - Hazardous glazing locations and specific stair details beyond a standard, typical stair detail are some examples of content that will be handled solely by the Field Inspectors.
 - NOTE: Stair designs where it is apparent in plan view that they are not code compliant will still be disapproved.
 - On plans that are designed & sealed by a licensed Design Professional, MCCE will no longer perform specific calculations for prescriptive bracing methods to confirm proper amounts of wall bracing are being provided. If bracing amounts are found to be below the req'd min in the field, the condition will be corrected to the satisfaction of the Field Inspector.
 - NOTE: Plan Reviewers will still look for DP to specify the bracing method, locations of braced wall lines & panels, and the method of attachment for braced wall panels.
 - Other checklist items will still be reviewed, but in less detail.
- c. This change in our plan review policy **does not** remove the Customer's responsibility to comply with the code or provide complete info on plans for items no longer scrutinized during plan review. It merely defers enforcement on those items to the field with the goal of reducing the time a project takes to go through plan review before permits can be issued & construction started.
 - Code violations identified in the field by the Inspectors shall be corrected to pass inspections & close out the permits.
- d. In the future, a new Professional Certification program will be available to Design Professionals that wish to bypass the majority of MCCE's plan review process. The DP would assume ALL responsibility for compliance of their design & plans with the NC



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Residential Code. Their plans would be reviewed to ensure they are all properly sealed & that they contain all the basic elements needed to construct the project. They are then permitted & sent to the field. MCCE Field Inspectors will inspect for total compliance with the NC Residential Code, requiring any & all corrections in the field.

- This program will be available after the nec'ry technology upgrades are in place to facilitate it through our online permit application process.
- Marcel Papineau of Intelligent Design Engr'g asked about the threshold for prescriptive design vs. engr'd design. Patrick Bidy, Plans Examiner, and Jeff Vernon, Bldg Code Administrator, said to not reference prescriptive req'mts where they are not being used or needed. Specify information on the plans as your engr'd design.
- Blanket statements on plans that indicate that a design will meet all Bldg Code req'mts is too vague & not adequate; all parts of the design need to be specified on the plans.
- Chris Kearns, Contractor, asked about what difference there would be for the Design Professionals under this Professional Certification program than from our current review & inspection system. Jeff Vernon agreed that in both scenarios the DP is ultimately responsible. However, the Professional Certification program provides a means for a DP to bypass undergoing a full plan review by MCCE for code compliance prior to issuing permits.

9. Since Figure R502.2 and Section R502.10 note "Use hanger if header spans more than 6 ft." at the trimmer and header detail for openings, does that mean that no bearing mechanism is required for a header under 6'?

No. Figure R502.2 & section R502.10 may specifically require hangers if the span exceeds 6', but section R502.6 mandates some type of end-bearing for ALL joists, beams, & girders. This would include the header at a floor opening that was spanning less than 6'.

10. Questions / clarifications / comments from the floor:

- a. Tony Kiser, Multi-trade Inspector, asked about an Architect sealing structural design plans. Patrick Bidy, Plans Examiner, said that the Architectural Licensing Board is not clear on their definition of "incidental" engr'g, which Architects are allowed to perform, but that Architects should not be performing the full structural design. MCCE is re-evaluating their position on how these projects can be approved.
 - Chris Kearns, Contractor, asked about those Architects who do perform full structural design on homes and clearly indicate that on the plans. Patrick Bidy said they have historically been and are currently being allowed to submit & go through plan review, but this position is part of what is being re-evaluated by MCCE.
- b. Tony Kiser, Multi-trade Inspector, asked about plans that are designed for anywhere within NC. A truss package design required hold-downs for high winds, but Mecklenburg County is not in an area where high winds are a req'd design factor. Jeff Vernon, Bldg Code Administrator, said the installation of the trusses must comply with the engr'd design unless the Eng'r issues a sealed bulletin dwg or letter modifying their design.

Training Topic – No Training Today

- Training cancelled due to Inspector workloads.

Checklist Items (identified by "X" for project type)	Project Types						
	New One & Two Family Homes (Custom & Master Plan)	Additions (excludes decks, screened porches, & towhhouse additions)	Two Story Accessory Buildings	Accessory Dwelling Units	New Townhouses	Townhouse Additions (includes Decks & Screen Porches)	One & Two Family Renovations
Detailed Foundation plan per Chp. 4	X	X	X	X	X	X	X
Egress Doors & Windows per Chp. 3	X	X	X	X	X	X	X
Detailed Structural Connections per Chp. 5	X	X	X	X	X	X	X
Window sill heights Chp. 6	X	X	X	X	X	X	X
Structural framing; header/jack-stud sizing per Chp. 5	X	X	X	X	X	X	X
Protection of garage separations	X	X	X	X	X	X	X
Portal frame detail (garage and large opening) R602.10.3.3	X	X	X	X	X	X	X
Bracing method, brace wall line & panel locations marked on plans (ie. shear wall location), & panel attachment methods Chp 6 (R 602.10.1)	X	X	X	X	X	X	X
Plans without professional seals: calculations of req'd minimum bracing amounts	X	X	X	X	X	X	X
Lumber spans, grade & species	X	X	X	X	X	X	X

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Stairs: Provide a typical stair detail reflecting the minimum code requirements (handrails, tread/riser size, ceiling heights, maximum vertical distance between landings, etc.) R311.7	X	X	X	X	X	X	X
Additions less than 100 square feet are exempt	NA	X	NA	NA	NA	NA	NA
Connection details for: new footings tied into existing footings, wood framing of floors, walls and roofs into existing components		X				X	
Attachment of new structural members to existing members (ie. beams) and effect on concentrated loads points		X				X	
Verification that egress windows are not being compromised within the existing structure		X				X	

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Provide details addressing how existing wall bracing is being modified to maintain compliance with the addition of the new work		X				X	
Existing energy compliance maintained; current code requirements apply only to addition		X				X	
Identify if additions are associated with Manufactured Homes or Modular Homes		X				X	
Protection of garage separations (interpretation) R302.4.2			X				
Unit separation wall R302					X	X	
Site plan check on end units					X		
CO HOLDS for final inspections on end units (verify fire separation)					X		
Verify building plans match approved site plans & approved elevations					X		

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No review on renovations without structural modifications; Plans and detailed scope of work must be included in permit documents							X
No review on renovations with structural modifications if designed by NC licensed structural engineer							X

Controller Items

Residential Plan Review Disclaimer for the Professional Certification Program (after technology support is available):

A limited content only review was performed on these plans. The Design Professionals identified on these plans have selected the Professional Certification Program. They are responsible for Total Compliance with the NC State Residential Code for the project design. No plan review for code compliance was performed by Code Enforcement under this program.

The project Contractor is responsible for meeting full compliance with the current version of the NC State Residential Code, local ordinances, and State regulations on the completed project.

Residential Plan Review Disclaimer: A limited plan review for compliance with the NC State Residential Code was performed on these plans. It is the Responsibility Of The Contractor to construct this project using good engineering practice and in full compliance with the North Carolina Residential Code, local ordinances, and State regulations.